

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>10002863WO01</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/JP2004/011310</b>	International filing date (day/month/year) <b>30/07/2004</b>	(Earliest) Priority Date (day/month/year) <b>01/08/2003</b>
Applicant  <b>CANON KABUSHIKI KAISHA</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

**REFLECTIVE DISPLAY DEVICE**

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/011310

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

A reflection type display apparatus includes a pair of substrates disposed opposite to each other. On the one of the substrates, a scattering plate (11) having a property of scattering an incident light toward its propagation direction is disposed, and on the other substrate a reflector (13) and a plurality of pixels (41,42,43) are formed. Further more, a light absorption or reflection structure (48) having a projection-like or wall-like shape is disposed on said other substrate at least at a portion of a periphery of unit each of said plurality of pixels. The reflection type display apparatus having such a structure provides a bright image without impairing clarity of the image.

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G02F1/1335 G02F1/167

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2001/004279 A1 (MITSUI SEIICHI ET AL) 21 June 2001 (2001-06-21) abstract paragraphs '0026!, '0027!, '0030!, '0033!, '0040!, '0044! - '0048!, '0053! - '0064! figures 3-5,9	1-3,6,9, 12
A	-----	4
Y	US 5 420 706 A (KONUMA TOSHIMITSU ET AL) 30 May 1995 (1995-05-30) abstract column 2, lines 30-65 column 3, line 16 - column 7, line 33 figure 2 ----- -/--	1-3,6,9, 12

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

26 October 2004

Date of mailing of the international search report

04/11/2004

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/048521 A1 (IKEDA TSUTOMU ET AL) 13 March 2003 (2003-03-13) abstract figures 1,2a-d,4a,4b,5a,5b,8-12 paragraphs '0032!, '0033!, '0039! - '0044!, '0048!, '0070!, '0077! - '0106! -----	1-3,6, 10-12
Y	US 2002/171619 A1 (LOWE ANTHONY C ET AL) 21 November 2002 (2002-11-21) abstract paragraphs '0075!, '0103!; figure 1 -----	1-3,6, 10-12

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 7

Claim 7 is uncomprehensible and obscure for the following reasons. According to the wording of claim 7, each pixel has a rectangular shape and said rectangular shape has a side located at its lower portion during image formation. It is unclear to which entity the term "its" used therein refers. If it referred to the entity "each pixel" then the expression would not be logic since the location of "said side of said rectangular shape of said each pixel" can not be defined with respect to the entity "each pixel" itself. Furthermore, it is unclear what is meant by the term "lower" since this adjective should define a geometrical relation between two items which is however not the case in claim 7. Finally, the expression "during image formation" implies that said location of said side is dynamically changing which in the light of the description is further unclear. It is pointed out that claim 7 could also not be interpreted in a meaningful sense in the light of the parts of the description (p.45, 1.17 - p.46, 1.10) considered to be relevant to the subject-matter of claim 7.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP2004/011310

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 7  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/011310

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 2001004279	A1	21-06-2001	JP	3524831 B2	10-05-2004
			JP	2001174801 A	29-06-2001
US 5420706	A	30-05-1995	JP	5181117 A	23-07-1993
US 2003048521	A1	13-03-2003	JP	2003161966 A	06-06-2003
US 2002171619	A1	21-11-2002	NONE		